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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,274	10/28/2003	Jeff Moreau	N1569-71511	4706
32009 7590 04/16/2007 BRADLEY ARANT ROSE & WHITE LLP 200 CLINTON AVE. WEST SUITE 900 HUNTSVILLE, AL 35801			EXAMINER WOLLSCHLAGER, JEFFREY MICHAEL	
			ART UNIT	PAPER NUMBER
			1732	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/16/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/695,274

Applicant(s)

MOREAU, JEFF

Examiner

Jeff Wollschlager

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant's amendment to the claims filed January 8, 2007 has been entered.

Claims 1-4 are currently amended.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The metes and bounds of the claimed scope is unclear. As presently presented, it is unclear whether the intended scope of the claims is to weave polyurethane coated fibers after the strands of fiber are pulled through the bath/coated or whether the intended scope is to employ fibers woven into a matrix and to pull/coat the woven fiber matrix with a polyurethane based material. For the purposes of examination, either reasonable interpretation is deemed proper.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishida (U.S. Patent 5,294,461) in view of Irvine et al. (U.S. Patent 6,000,883) and further in view of Cheolas et al. (U.S. Patent 6,793,855) or Katoot (U.S. Patent 6,146,556).

Regarding claims 1 and 4, Ishida teaches a pultrusion process for preparing fiber reinforced polymer composite sheets and other profiles comprising: pulling fibers through a bath of a polyurethane based material wherein the fibers are woven into a cloth/matrix; forming the sheet in a die; and curing the sheet (col. 1, lines 9-10, 26-35; col. 2, lines 48-54; col. 3, lines 35-42; col. 4, lines 49-63; col. 5, lines 14-16, 55-63; col. 6, lines 5-9, 19-31; col. 8, lines 18-32). Ishida teaches a sheet having similar structural and physical properties as the sheet pile formed by the process instantly claimed. Ishida meets manipulative steps of the claims, but Ishida does not clearly specify that the fiber reinforced polyurethane based sheet may be employed as a sheet pile. However, Irvine et al. teach an extrusion method of manufacturing a polyurethane based, fiber reinforced sheet pile.

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to employ the process of pultrusion as taught by Ishida for preparing fiber reinforced polymer composite sheets such as a sheet pile as is taught Irvine. The motivation to so is provided by Katoot who teaches pultrusion offers significant product strength improvements compared to other methods, such as extrusion, and is applicable to sea retaining walls/sheet pilings (col. 4, lines 41-64; col. 13, lines 1-5, 31-36). Additional motivation is provided by Cheolas et al. who teach that pultrusion is a highly cost effective method for making fiber reinforced resin matrix

composites (col. 1, lines 16-18). Further motivation is provided by Ishida who teaches that the pultrusion process makes it feasible to increase line speeds (col. 2, lines 52-54). As such, the claimed invention as a whole is rendered *prima facie* obvious over the combined teaching of the prior art.

As to claims 2 and 3, Ishida teaches the material is cured with heat and that the fibers are glass (col. 5, lines 58-63; col. 1, lines 26-35).

Response to Arguments

Applicant's arguments filed January 8, 2007 directed to the amended claims has overcome the section 102 rejections over Weyant (US 6,893,191) and Irvine (U.S. 6,000,883). However, applicant's arguments regarding Ishida have been fully considered, but they are not persuasive.

Applicant's arguments appear to be on the following grounds:

1. Ishida does not teach weaving the fibers into a matrix pattern.

Applicant's arguments are not persuasive for the following reasons:

1. Ishida teaches that "cloths woven from rovings" of fibers may be employed in the pultrusion process (col. 6, lines 5-6).

Conclusion

All claims are rejected.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Wollschlager whose telephone number is 571-272-8937. The examiner can normally be reached on Monday - Thursday 7:00 - 4:45, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JW

Jeff Wollschlager
Examiner
Art Unit 1732


CHRISTINA JOHNSON
SUPERVISORY PATENT EXAMINER

4/12/07

April 5, 2007